CHAdeMO

MODE 3
(IEC 61851)

INSTRUCTION MANUAL

CirCarLife Intelligent recharging solutions for electric vehicles

QPC-CH CCS AC63

CIRCONTROL
Mobility & eMobility

TRI RAPID CHARGER – INSTRUCTION MANUAL

User manual version	*V1.0.1* *September edition 2014*
Platform version	*V2.0*
CirCarLife version	*V4.3*

CONTENTS

1 INTRODUCTION

This manual contains all the information necessary for safe use of quick charge point and helping to get the best performance results.

Circontrol's quick charging stations are the fastest way of charging today's electric vehicles. Their innovative, original design offers a fast, easy to use charging solution, in line with CHAdeMO's current standards for the quick, direct current charging of electric vehicles. This solution has a user friendly interface, vandal proof design and easy to install structure. Communications has been integrated in all models allowing remote controlling of the units, remote monitoring in real time and OCPP or XML integrations.

This feature provides an easy way to integrate in higher systems allowing owner to take profit of it.

1.1 CERTIFICATIONS

Certification

- Complies with IEC 61851, Electric vehicle conductive charging system (IEC 61851-1 and IEC 61851-23)
- Complies with IEC 62196, Plugs, socket-outlets, vehicle couplers and vehicle inlets - Electric vehicle. conductive charging system (IEC 62196-1 and IEC 62196-3)
- Complies with CHAdeMO protocol.
- Complies with European Directive 1999/5/EC.

1.2 SECURITY WARNINGS

THE FOLLOWING SYMBOLS ARE USED FOR IMPORTANT SAFETY INFORMATION IN THIS DOCUMENT
The unit must be disconnected from any power source before performing any maintenance (repairing or handling of any equipment connections) and **wait minimum 15 minutes** while capacitors are being discharged.
Do not modify the unit. If modified, CIRCONTROL will reject all responsibility and the warranty will be void.

WARNING

People who use electronic medical devices such as implanted cardiac pacemaker or implantable cardioverterdefibrillator (ICD) might be affected by electric wave from the quick charger. Keep the device away from the quick charger more than 2 meters while is in charge operation.

1.3 IMPORTANT SAFETY INFORMATION

- Read all the instructions before using or configuring this product.
- Do not use cables there are not in perfect conditions.
- Do not use this unit for anything other than electric vehicle charging.
- Do not modify this unit. If modified, Circontrol will reject all responsibility and the warranty will be void.
- Comply strictly with current safety regulations according to your country rules.
- Do not make repairs or manipulations with the unit energised.
- Only trained and qualified personnel should have access to low-voltage electrical parts inside the device.
- Check the installation annually by qualified technician.
- Replace from service any item that has a fault that could be dangerous for users (broken plugs, caps that don't close...).
- Use only original supplied spare parts.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage

2 BASICS

The EV charging process is regulated by the IEC 61851 and IEC 62196 international standard regulations. These standards define the different charging modes and the connector type required to recharge the EVs.

Below information shows different charging modes and plug types available in the electric vehicles and charge points.

2.1 CHARGING MODES

Mode 1

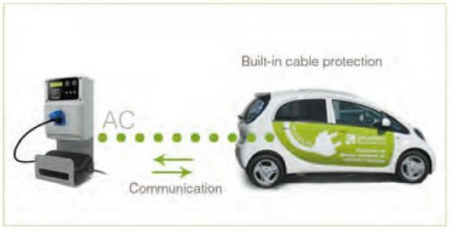
Technical features
Standard electrical network connector, non-specific for EVs.
Slow AC charging.
The installation must be protected with circuit breakers and earth leakage protection elements.
Maximum 16 A per phase (3.7 kW - 11kW).

Mode 1

Mode 2

Technical features
Standard electrical network connector, non-specific for EVs.
Slow AC charging.
The installation must be protected with circuit breakers and earth leakage protection elements.
Maximum 32 A per phase (3.4 kW - 22kW).
Special cable with an intermediate electronic device, with a control and protection pilot function.

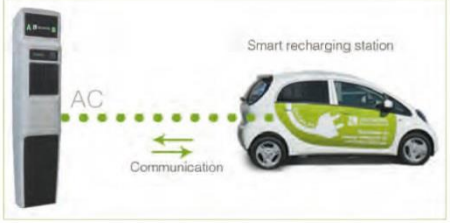
Mode 2



Mode 3

Technical features
Electrical network connector, specific for EVs.
Slow or semi-fast charging in single or three-phase installations.
Protection elements included in the special infrastructure for EVs.
Maximum 64 A per phase (14.8 kW - 43 kW).
Direct connection of the EV to the charging unit.

Mode 3



Mode 4

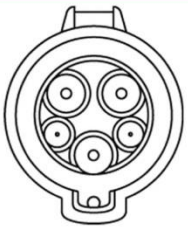
Technical features
Electrical network connector, specific for EVs.
Quick DC charging.
Charging station, exclusively used for EVs.
Maximum 400 A per phase (50 kW - 150 kW).
Control and protection elements installed in the infrastructure.

Mode 4

2.2 PLUG TYPES

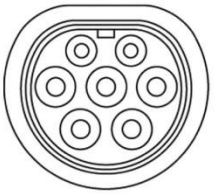
Type 1

SAE J1772 Regulation.
5 pins (L1/N, PE, CP, CS).
Maximum 230Vac 32A single-phase (7.3kW).



Type 2

7 pins (L1, L2, L3, N, PE, CP, PP).
Maximum 400Vac 63A three-phase (43kW).

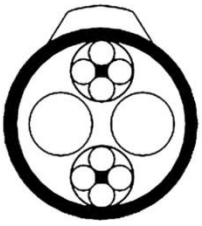


Type 3

7 pins (L1, L2, L3, N, PE, CP, PP).
Maximum 400Vac 32A three-phase (21kW).

CHAdeMO

Indirect connection between the EV and DC supply point. Control and protection elements installed in the infrastructure.



Combined Charging System Combo 2

DC connector of the combined AC/DC plug-in charging system:
The inlet of the plug-in connector can also be used for AC voltage charging with a type 2 AC plug. One inlet is required on the vehicle side for AC and DC charging.

3 QUICK CHARGER AT A GLANCE

3.1 FEATURES

- **HMI:** 8" screen provides to user all the detailed information of the charge (energy charged, battery status…) and detailed procedures to start/stop charging.
- **RFID:** Authentication for start/stop charging transactions and also prepayment options available to use with Circontrol RFID cards.
- **User management:** provides a database to associate users with one or more RFID cards to allow or deny recharges.
- **Connector Lock:** Plug connector used (mode 3 and mode 4) has a lock system to avoid disconnection of electric vehicle while is charging.
- **Light beacon:** Three colour led indicates to user status of the charge point:
  - **Green:** Available
  - **Blue:** Charging
  - **Red:** Error
- **Ethernet:** TCP/IP communication through an "Ethernet" compliant network between the charge point and customer network (if available).
- **3G and GPRS (optional)** for remote control, monitoring or OCPP integrations.
- **Energy metering:** Integrated meter built is measuring power and energy consumed by the EV during a charge.
- **Real time monitoring:** Using standard browser system allows access to the unit and monitoring charge status.
- **Remote control:** Remote actions as start/stop charge are available.
- **Charge data storage:** System is capable to generate energy reports according to data storage from recharging historic.
- **OCPP integration**: OCPP is the Open Charge Point Protocol communication between charge points and a central system allowing a centralization authentication, monitoring in real time and a wide variety of functions related to recharge.

3.2 UNIT OVERVIEW

1. AC Plug beacons	**2.** DC Plug beacons	**3.** Air output cover
4. Air filter cover	**5.** MCB and RCB cover access	

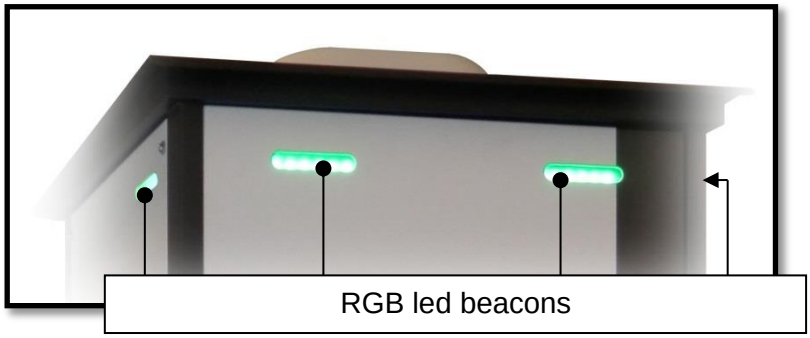
3.3 USER FRONT PANEL

AC PLUG + DC PLUG

1. 8” HMI	**2.** RFID reader	**3.** AC Plug – Control buttons
4. Emergency Push-Button	**5.** DC Plug – Control buttons	

3.4 COLOUR CODE OF THE CHARGER BEACONS

Charge point is equipped with LED beacons at the top of the unit in order to indicate the different states from each plug.



RGB led beacons

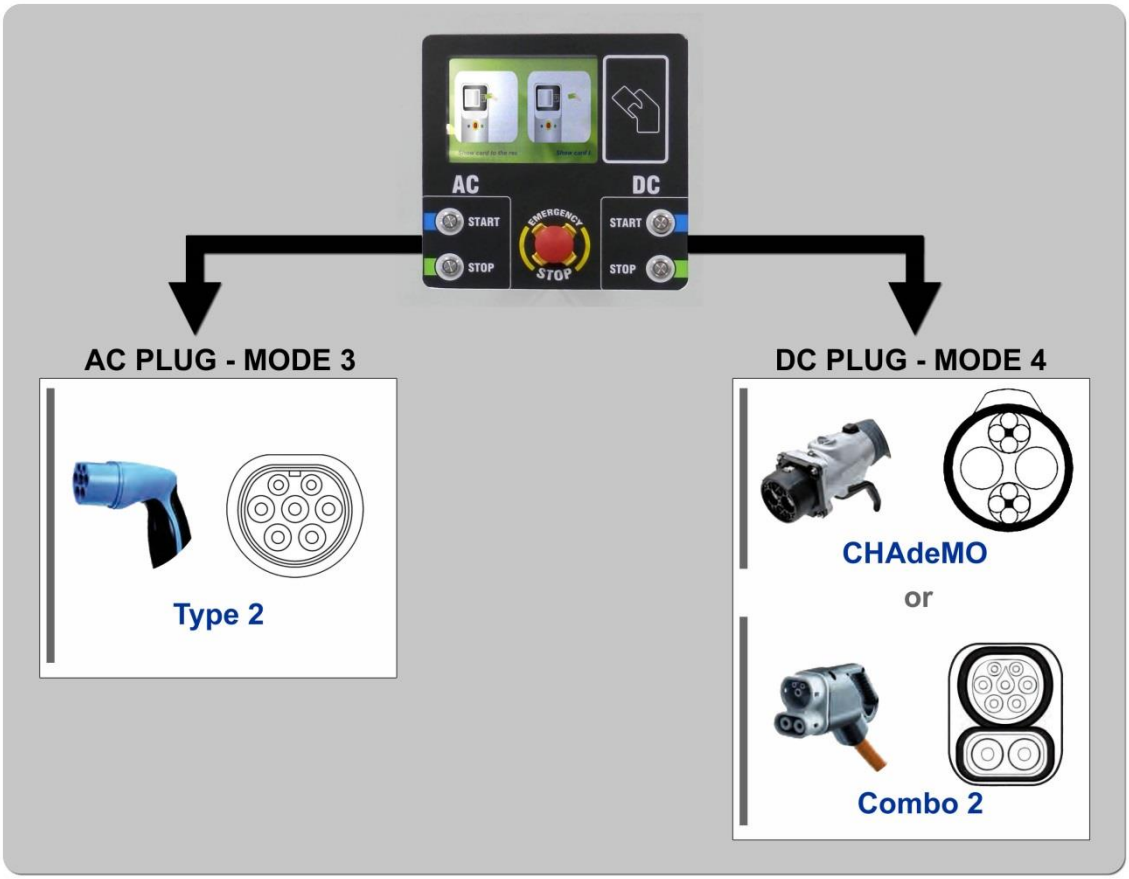
The following table shows all possible states of the beacons in the charge point:

STATUS	COLOUR	DESCRIPTION
1. AVAILABLE	**GREEN**	The unit is available to begin a new recharging session.
2. CHARGING	**BLUE**	The unit is occupied by a user that is currently charging a vehicle.
3. ERROR	**RED**	The unit indicates: - A malfunction in the unit. - Emergency button is pushed. In both cases the charge point indicating this state is out of the service and the unit cannot be used until the incident is resolved.

3.5 CHARGE POINT PLUGS

Tri rapid charger is equipped with three different plugs:

- **AC (Mode 3)**: Type 2 – Semi fast charge.
- **DC (Mode 4)**: CHAdeMO or Combo 2. Ultra-fast charge.



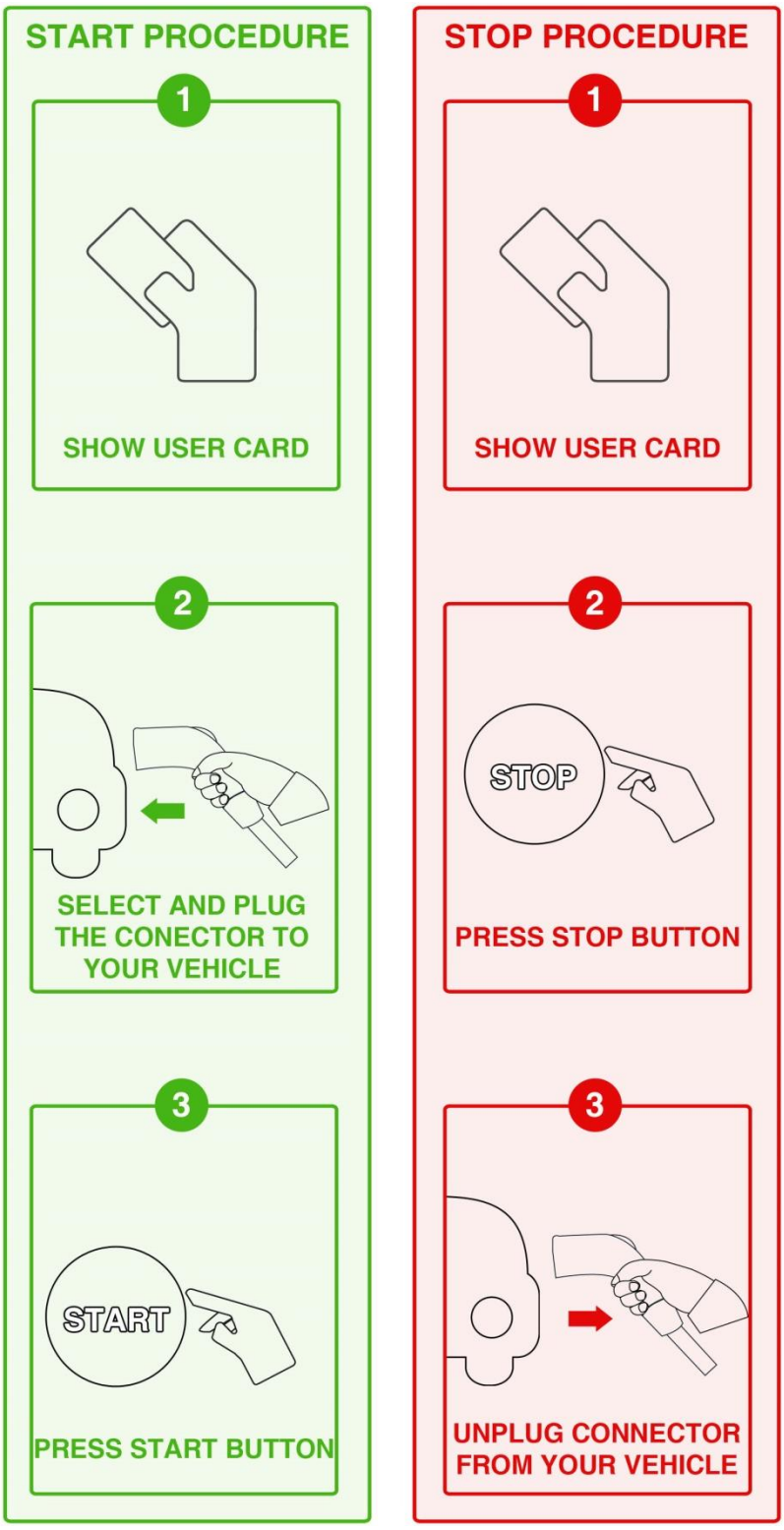
Screen is split down the middle into two parts. Left side explains AC information and right side explains DC information.

Please read following considerations before start using the unit:

- Tri rapid charger can only carry out two simultaneous recharge sessions using different RFID cards to start (AC + DC).
- Charge point is not capable of carrying CHADEMO and Combo 2 simultaneously. Only one plug (CHAdeMO or Combo 2) can be used in DC.

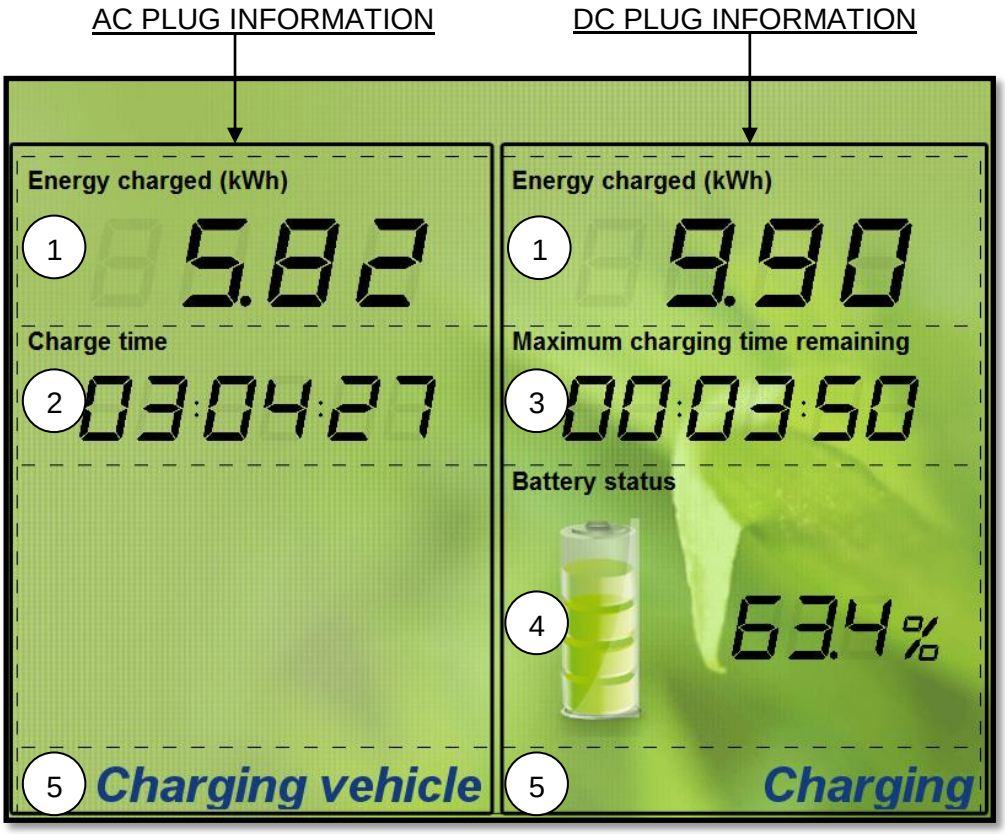
4 INSTRUCTIONS FOR USE

This section describes how to starting or ending a recharge session when only one DC outlet is installed on the rapid charger for electric vehicles.



4.1 CHARGING INFORMATION SCREEN

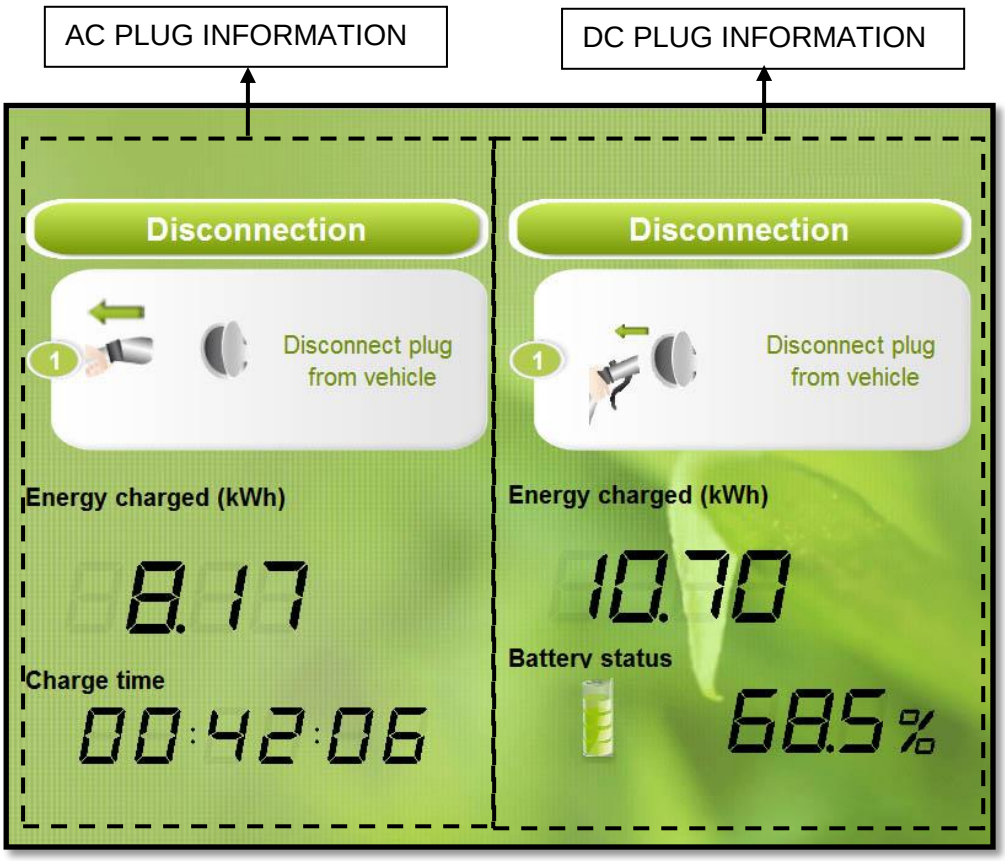
Image below appears when two electric vehicles are charging on the charge point using AC and DC plug simultaneously.



AC PLUG INFORMATION		
Option		**Description**
1	Energy charged	Real time energy supplied to the vehicle connected.
2	Charge time	Recharging elapsed time.
5	Additional information	Current status charging and how to stop it.
DC PLUG INFORMATION		
1	Energy charged	Real time energy supplied to the vehicle connected.
3	Maximum charging time remaining	Maximum estimated time to complete vehicle recharging.
4	Battery status	Battery current status.
5	Additional information	Current status charging and how to stop it.

4.2 CHARGING SUMMARY SCREEN

Image below appears when electric vehicles have finished to charge or charging in progress has been interrupted by the user.



AC PLUG INFORMATION	
Option	**Description**
Energy charged	Total energy supplied to the electric vehicle connected.
Charge time	Total recharging elapsed time.
DC PLUG INFORMATION	
Energy charged	Total energy supplied to the electric vehicle connected.
Battery status	Battery current status.

NOTE: This screen is displayed for 1 minute after recharge is completed or stopped.

5 EMERGENCY STOP

The charge point is equipped with an emergency stop button to provide safety to the people and the unit.

Emergency stop button is a function that is initiated by a human action and it is intended to shut down equipment in case of emergency. Do not press if there is no emergency or risk.

When the emergency stop is active in the unit:

- All active recharges will stop.
- LED beacon turns red.
- Charge point cannot be used until rearm.

INSTRUCTION TO REARM THE CHARGE POINT

1- Release the emergency button.
2- Press stop button until the LED beacons turns green (20 seconds approx.)
3- Unit returns to display the idle state.

6 SETTING UP THE UNIT

Charge station can be configured and monitorized to establish owner preferences or specific setup using integrated Ethernet communication port allocated in HMI controller device.

Once service PC is configured as bellow procedure and connection established with the charge station, direct access to the device main setup page will be showed.

Charge station is shipped from the factory with default network setting of "*DHCP enabled".* It means that the charge station will try to obtain an IP address from a DHCP server available on the network.

Step by step below guide detailed setup an IP address to the charging station in case there is no DHCP server available on the network.

6.1 PREREQUISITES

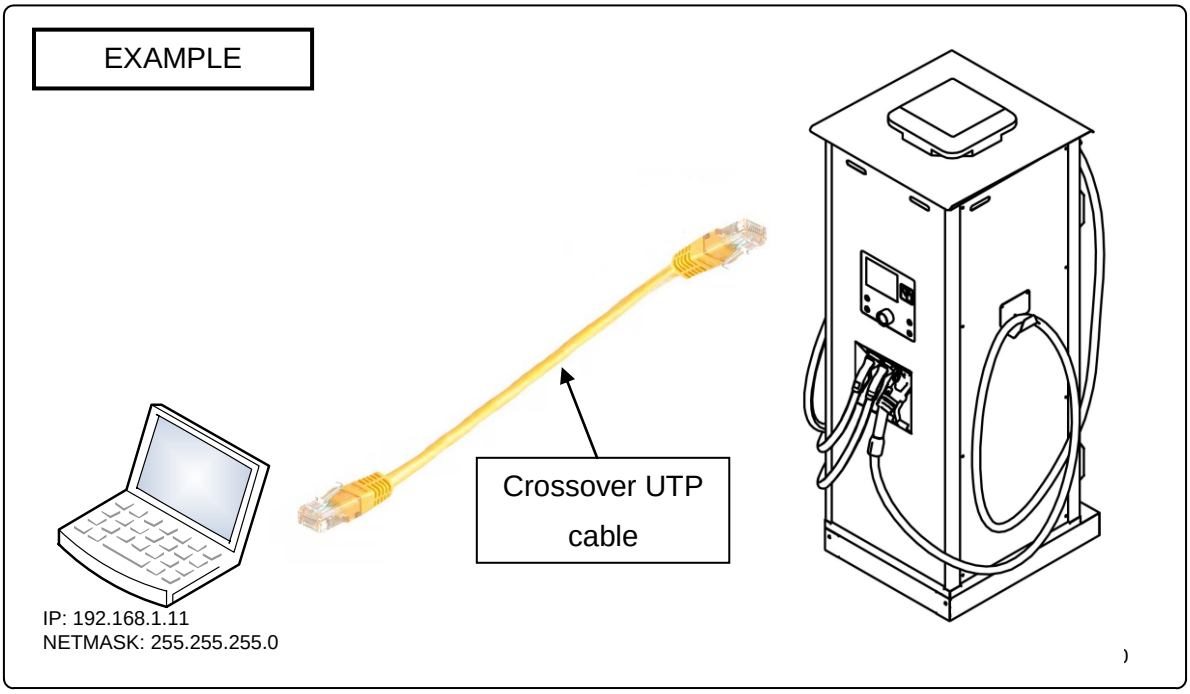
Below table shows, hardware and software needed to setup and IP address to the charge station.

	Computer running one of the following operating systems - Windows XP (x86) - Windows Vista (x86/x64) - Windows 7 (x86/x64) - Windows 8 (x86/x64)
	Crossover Cable UTP Cat.5e o Cat6
	Software needed: **IPSetup.exe.** *(Supplied with charge point)*

6.2 NETWORK TOPOLOGY

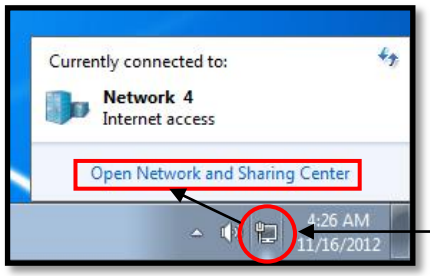
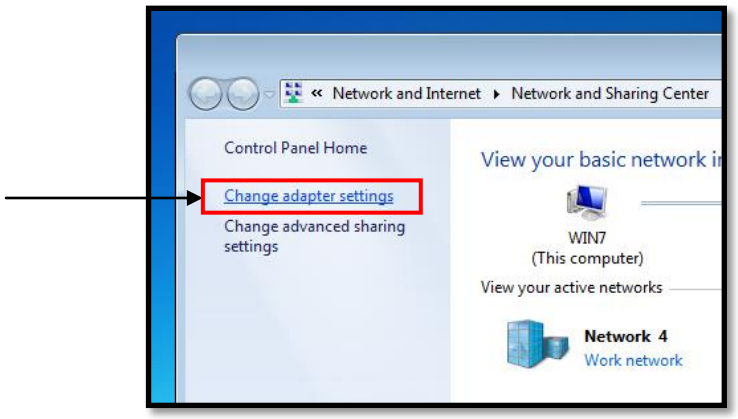
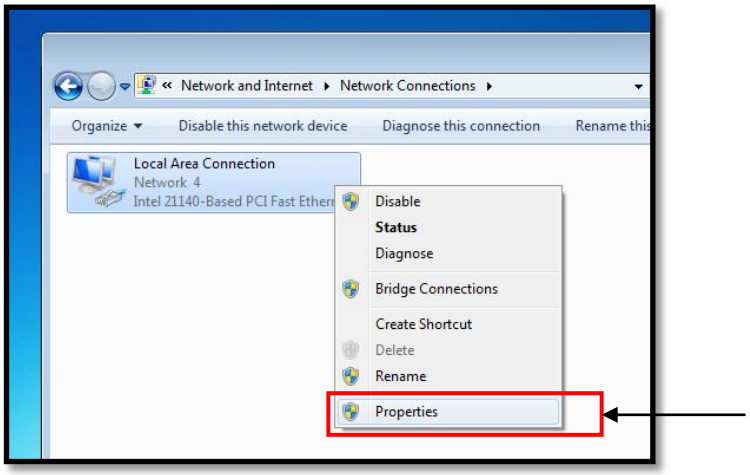
Connecting pc with charge station needs to be done with static IP address and TCP/IP v4 protocol. Next section shows how to do this configuration.

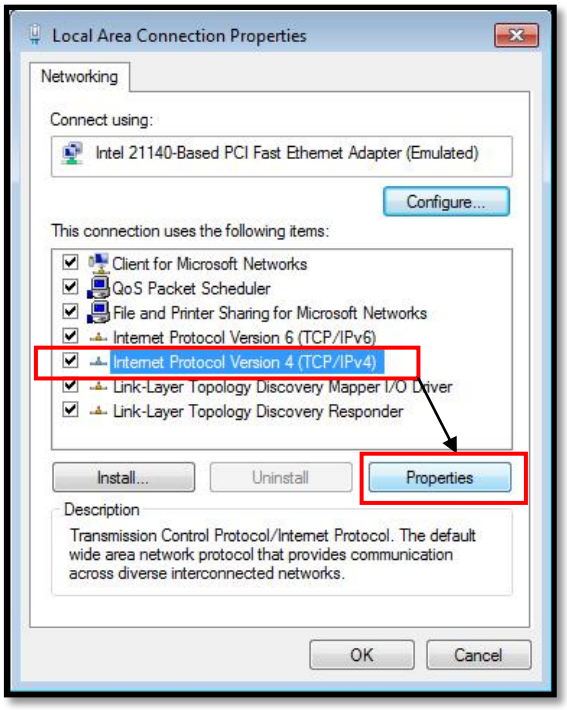
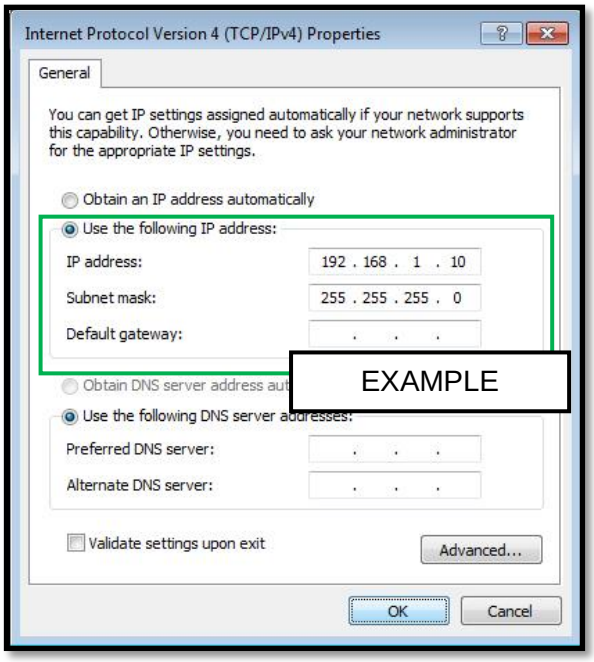
Below figure shows Ethernet connection topology and the IP addresses used in this guide as **example**.

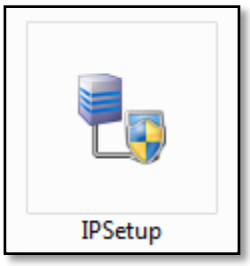
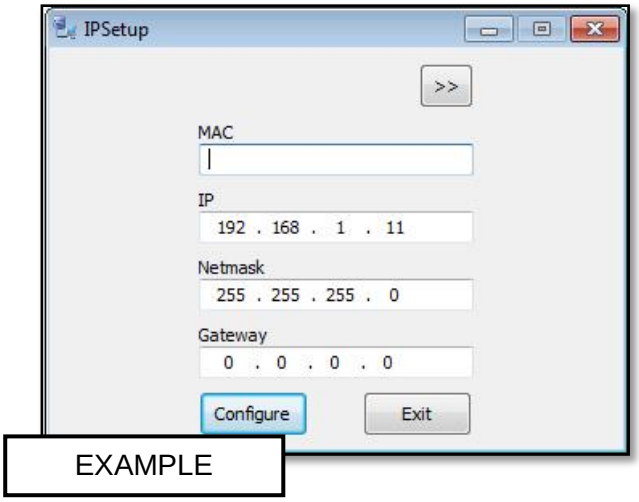


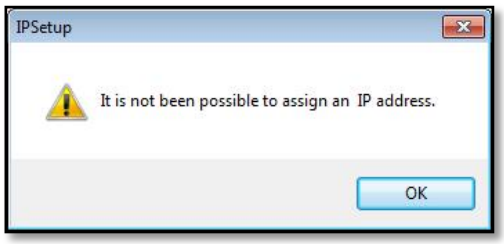
6.3 LAN CONNECTION PROCEDURE

This section provides a step-by-step guide to be able to connect a laptop to the charge station in order to see real-time status.

Step	Actions
1	Click on the network icon next to the clock of the taskbar.  **Click on "*Open Network and Sharing Center*"**
2	On the left pane, **click the option: "*Change adapter settings*".** 
3	**Right click on "Local Area Connection"** and then click on **"Properties"** 

4	Select “Internet Protocol Version 4 (TCP/IP)” option and **click “Properties”**. 
5	Setup IP address and subnet mask like as shown below:  Click *OK* twice to complete the process to assigning IP address to the computer.

7	**Execute *IPSetup.exe*** utility. 
8	Enter the following parameters: • MAC of the charge point device (see lateral label in the device) • IP address: i.e.(192.168.1.11) • Netmask: i.e. (255.255.255.0) • Gateway: leave default settings.  EXAMPLE
10	Wait 30 seconds approximately until the process is complete. 

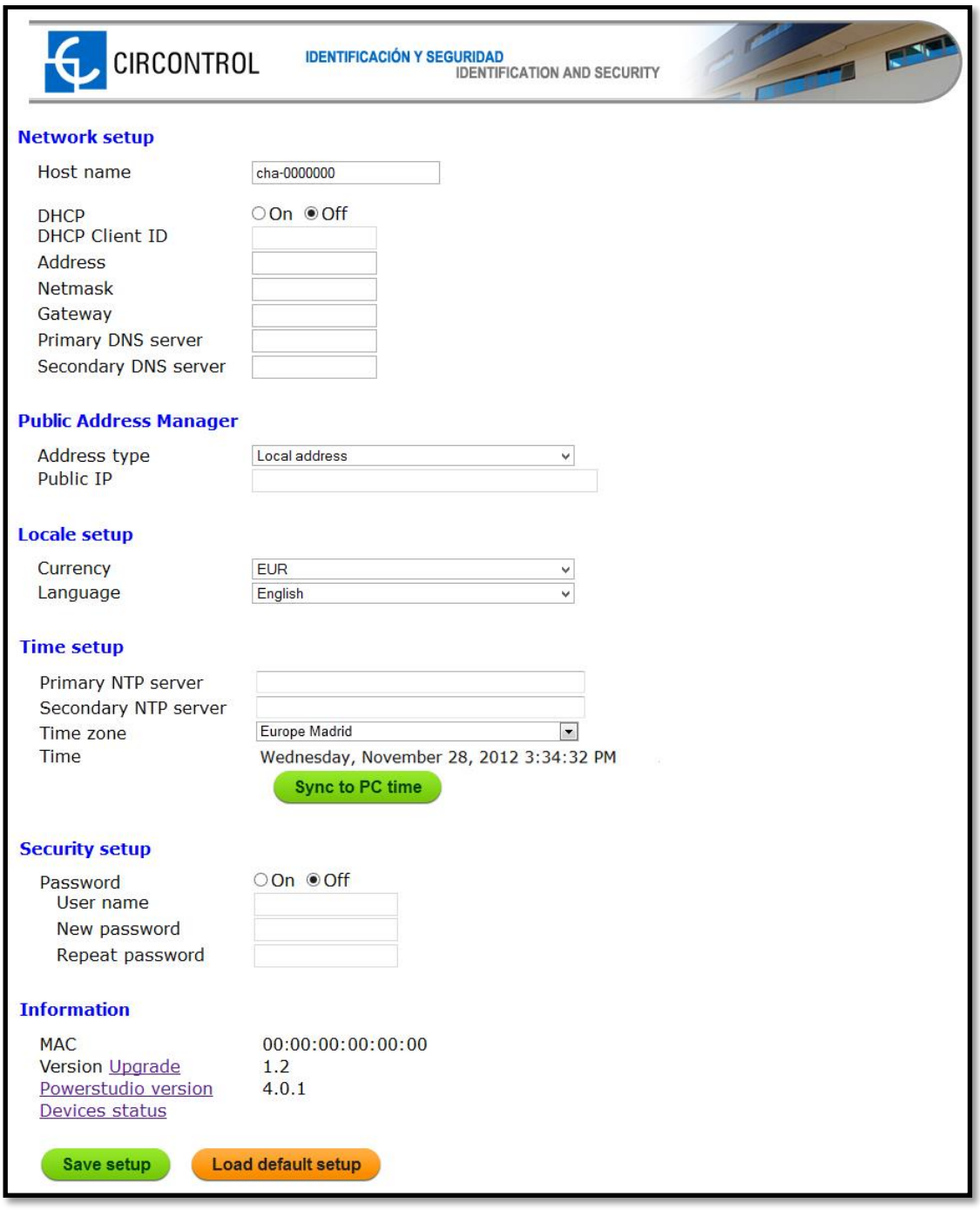
	The process will complete when the following message appears. 
11	If the message shown is the next one, check the following parameters.  - Check IP address entered. - Check the MAC of the device entered. - Try with another UTP CAT5e cable.

6.4 SETUP WEB PAGE

Setup web page allows managing networking setup, modem 3G setup, upgrading the device and other options.

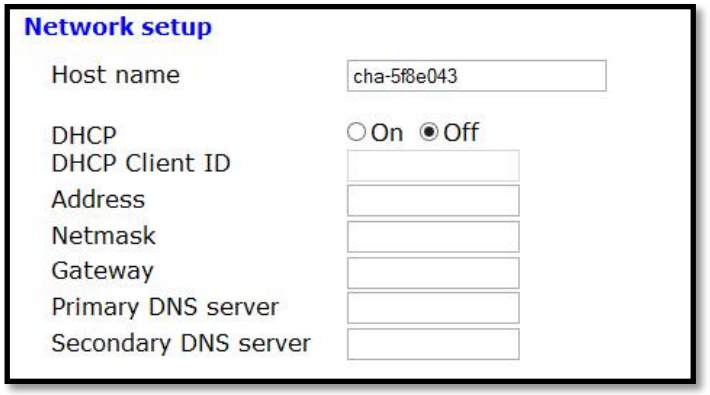
To access to the setup web page, open a web browser and enter the following address:

Direct link: http://"IP ADDRESS"/html/setup.html



6.4.1 NETWORK SETUP

This section provides the basic configuration of the network parameters.



Value	Description
Host name	Name of the device on the network
DHCP	Enable or disable the IP address assignment by a DHCP server.
DHCP Client ID	Client ID associated to the DHCP Server (If available)
Address	IP address assigned to the WallBox
Netmask	Netmask of the network
Gateway	Gateway/router IP address
Primary DNS server	DNS server IP addresses
Secondary DNS server	

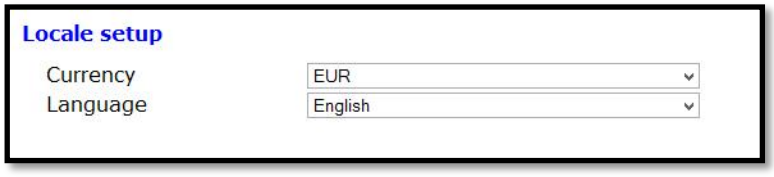
6.4.2 PUBLIC ADDRESS MANAGER

This section is only for OCPP integrations and allows setting the IP address to establish connection between charge point and OCPP central system.

Value	Description
Address type	**Local address:** When selected, private IP address will be sent to OCPP central system. This option is valid if the OCPP central system is connected to the same private network of the charge point. **Static address:** When selected, enter a value on *Public IP* textbox. It is possible to enter an IP address or a domain name. **SIERRA Wireless Raven XE H2295EW:** Select this option only when SIERRA Wireless RAVEN XE router 3G is installed.

6.4.3 LOCALE SETUP

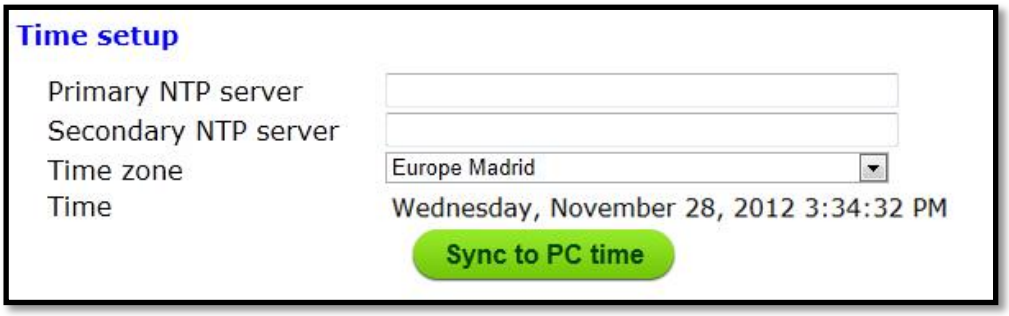
This section allows changing the language on the LCD screen.



Value	Description
Currency	Allows selecting the country currency according to your country.
Language	Allows selecting the screen unit language.

6.4.4 TIME SETUP

This section allows setting the time and region unit time.



Value	Description
Primary NTP Server	Allows synchronizing time through internet automatically
Secondary NTP Server	
Time zone	Allows selecting the regional unit time according to your country.
Time	Actual date and time of the unit.
Sync to PC time	This button allows synchronizing date and time with local computer connected if the date and time of the charge point is not correct.

6.4.5 SECURITY SETUP

All of these parameters are disabled by default. When enabled, it denies unauthorized access to the web page configuration (setup.html) of the device and also prevents the export or import of a new configuration of PowerStudio engine from an unauthorized user.

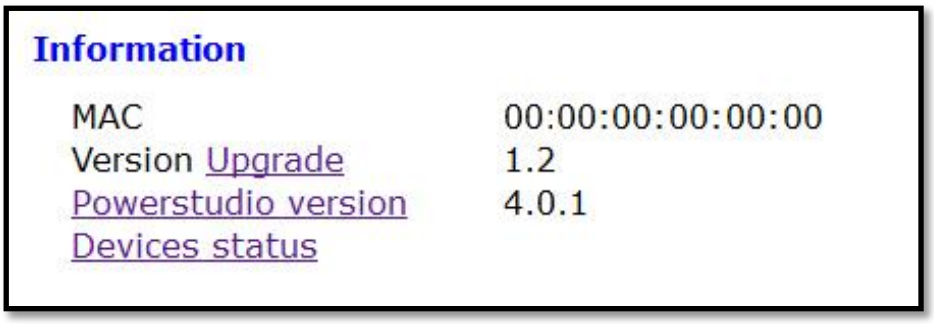
Value	Description
Password	**ON:** authentication enabled **OFF:** authentication disabled
Username	Username and password authentication for setup.html web page.
New password	
Password	

Do not forget the credentials of the device. There is no way to reset the device to default factory settings.

It will require returning the unit to the service centre.

6.4.6 SYSTEM INFORMATION

This section provides basically information about the unit.



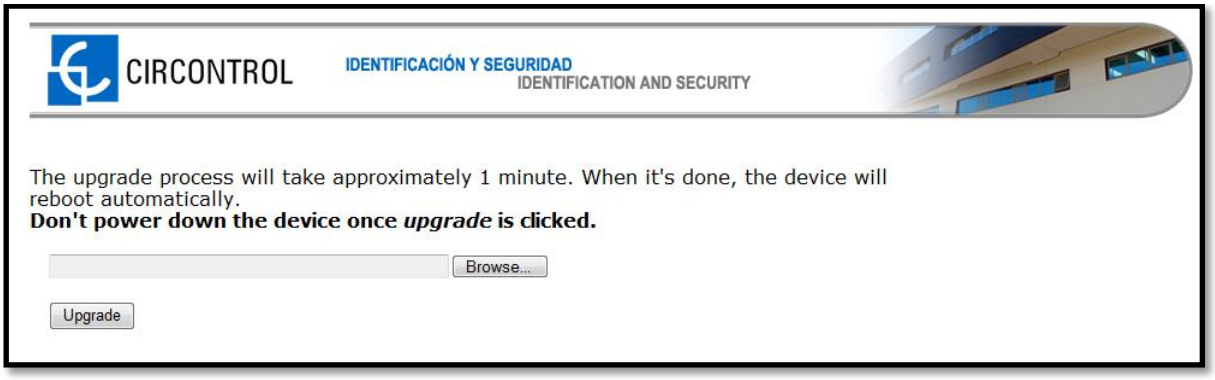
Value	Description
MAC	Identifier of the network card of the unit
Version Upgrade	Version of the firmware currently installed and link to the upgrade web page
PowerStudio version	PowerStudio Engine version
Devices status	Link that allows viewing the status of the configured devices.

6.4.6.1 SYSTEM UPGRADE

Upgrade web page allows to upgrade the firmware of the unit through a file with ***.upgrade** extension.

This file is provided by your installer or manufacturer of the unit.

Direct link: http://"IP_ADDRESS"/html/upgrade.html



Firmware file transfer must not be interrupted. Failure of the file transfer involves irreversible damage to HMI master controller and the correct functionality of the equipment. It will require returning the unit to service centre.

Ensure that the unit will not be affected or powered off while updating.

6.4.6.2 POWERSTUDIO VERSION WEB PAGE

Powerstudio version web page allows viewing the following information:

- Current firmware version installed.
- Scada Platform version
- Available languages
- List of available devices that can communicate with the WallBox.

Direct link: http://"IP_ADDRESS"/services/system/info.html

6.4.6.3 DEVICES STATUS WEB PAGE

Devices status web page allows checking if all devices configured with CirCarLife Scada Editor 4.0 Software are available and working properly.

Direct link: http://"IP_ADDRESS"/html/devstat.html

6.5 LOG WEB PAGE

Log web page allows showing a temporary log since CHADEMO is powered ON. If CHADEMO has

Direct link: http://"IP_ADDRESS"/html/log

EXAMPLE

7 QUICK CHARGER OCPP INTEGRATION

7.1 INTEGRATION SETUP WEB PAGE

Integrations setup web page allows managing and enabling the integrations available on the dropdown list.

To access to the setup web page, open a web browser and enter the following address:

Direct link: http://"IP ADDRESS":65432

NOTE: *Remember to remove the quotes when entering an address into the web browser.*

The selected default option is: **none.**

When this option is set to *none*, there is no integration enabled on the charge point. In this way, all RFID showed to the charge point can start recharging.

Available options:

- **OCPP 1.2**: Open Charge Point Protocol (OCPP) is an open protocol between charging stations and managing central system.

7.2 OCPP ENGINE SETUP WEB PAGE

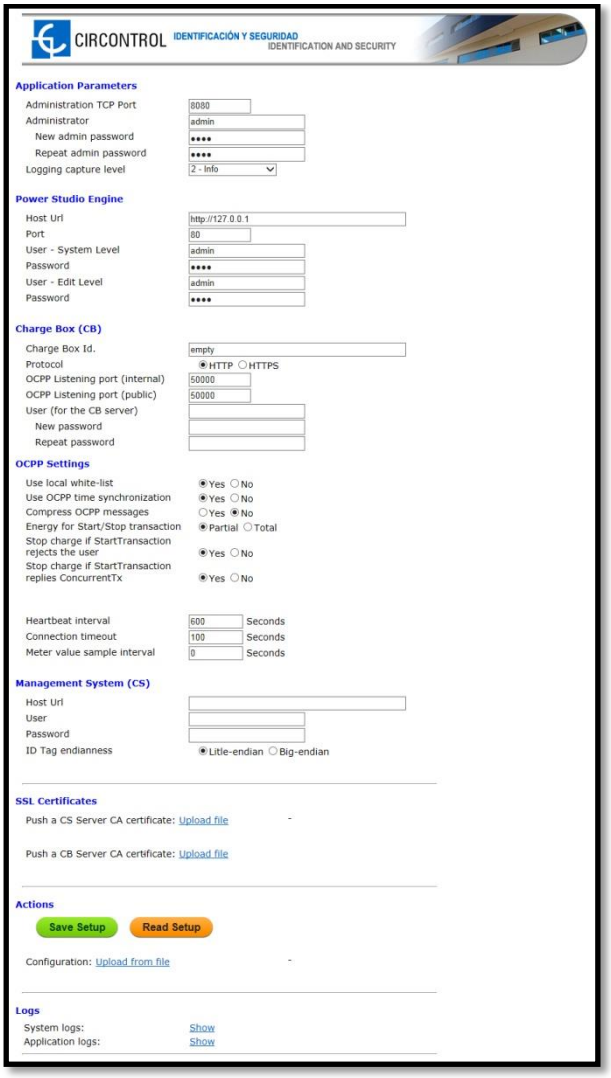
This website allows to setup parameters of the integration selected on the previous section.

First time is running OCCP engine on the charge point, it starts as configuration mode and all fields are filled by default. These parameters are always saved even when the charge point is powered off.

To access to the OCCP engine setup web page, open a web browser and enter the following address:

Direct link: http://"IP ADDRESS":8080

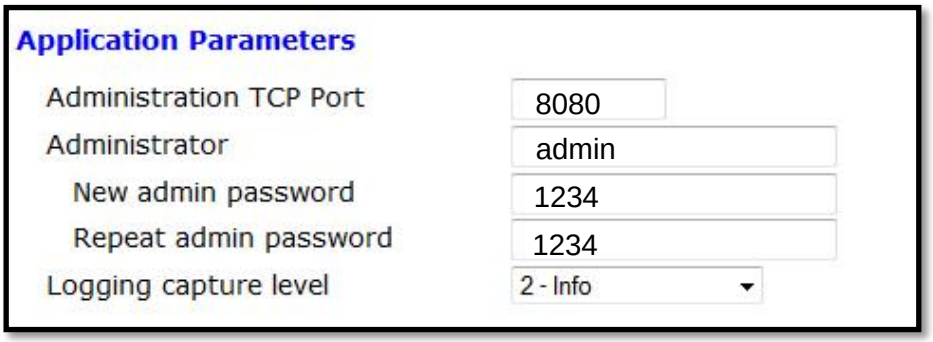
NOTE: *Remember to remove the quotes when entering an address into the web browser.*



NOTE: *Remember to have an integration enabled before accessing this site.*

7.2.1 APPLICATION PARAMETERS

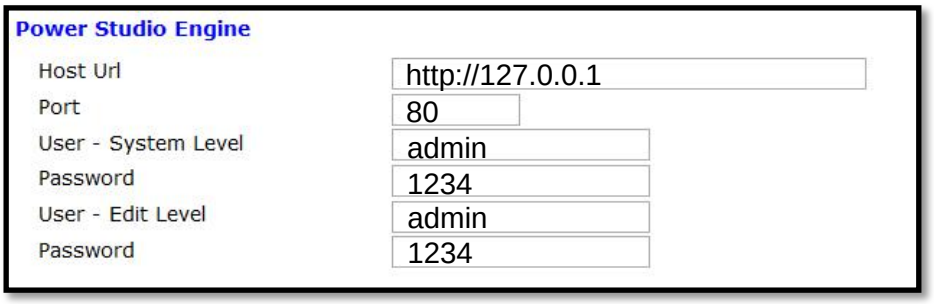
This section is for configuring the OCPP engine website. It is recommended leaving the default settings.



Value	Description
Administration TCP port	Port number where the OCPP engine website is hosted. **Default parameter**: 8080
Administrator	Administrator username. **Default parameter**: admin
New admin password	Password for administrator user. **Default parameter**: 1234 If a new password is entered, it will be applied after saving new configuration.
Repeat admin password	
Logging capture level	Capture mode message log of the OCPP engine. **0 – None**: Not record any messages. **1 – Error**: Record only error messages. **2 – Info**: Record error and information messages. **3 – Debug**: Record all messages between charge point and Central System including error and information messages. **Default parameter**: 2 – Info

7.2.2 POWERSTUDIO ENGINE

OCPP Engine is a service running in parallel with PowerStudio and it is required to add these parameters on this section.

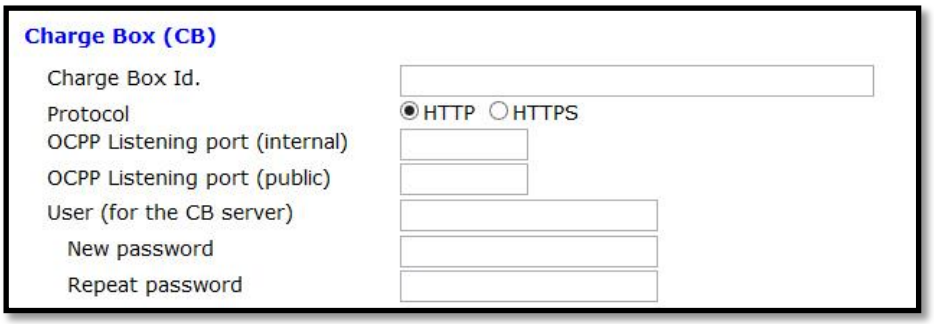


Value	Description
Host URL	URL where PowerStudio is hosted. **Default parameter (do not change)**: http://127.0.0.1
Port	PowerStudio port. **Default parameter (do not change):** 80
User – System level	Username and password authentication configured on PowerStudio. **Default factory parameters:** **Username:** admin **Password**: 1234
Password	
User – Edit level	Username and password configured in the security section of setup.html website. **Default factory parameters:** **Username:** admin **Password**: 1234
Password	

7.2.3 CHARGE BOX (CB)

All of the parameters shown below must be assigned by OCPP central system administrator.

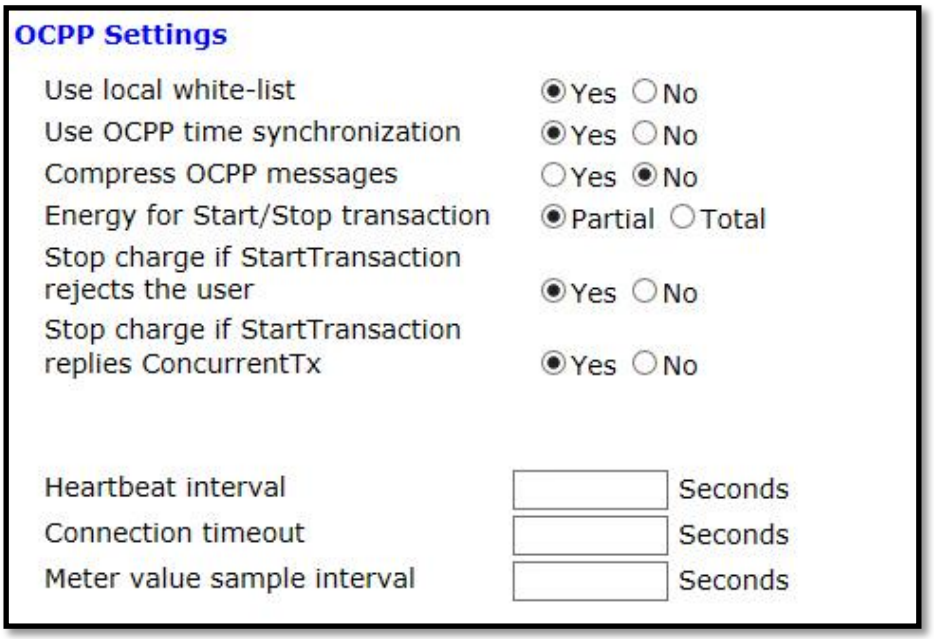
Please contact to your OCPP central system administrator to get the configuration parameters.



Value	Description
Charge Box ID	Charge point identifier.
Protocol	Protocol type. If HTTPS is selected, make sure to have CS Server CA certificate into .PEM format.
OCPP Listening port (internal)	Listening port from charge point.
OCPP Listening port (public)	
User (for the CB server)	Authentication parameters.
New password	
Repeat password	

7.2.4 OCPP SETTINGS

Select properly values according to OCPP central system parameters. Please contact to your administrator to select and enter the correct values.



Value	Description
Use local white-list	**Yes:** it stores a list of authorised users of the Central System at the charge point. **No:** Authorization is consulted to the Central System for each RFID card shown.
Use OCPP time synchronization	**Yes:** Local time of the charge point is synchronized from OCPP central system time on each Heartbeat and Boot Notification requests. **No:** Local time of the charge point is not synchronized, but remains stored in the charge point. ***Optional:*** *Time can be synchronized through NTP server under setup.html web page.*

Compress OCPP messages	Sending compressed messages between charge point and central system. ***NOTE:*** *Before enabling this option, consult to your OCPP administrator if central system allows this function.*
Energy for Start/Stop transaction	**Partial:** Send partial energy consumption on start / stop messages. **Total:** Send total energy values from energy meter on start / stop messages.
Stop charge if *StartTransaction* rejects the user	Identifier might have been authorized by the charge point using an out of date white local list and may have been blocked later from Central System. **Yes:** Stop charging when the Central system rejects the id card shown. **No:** Charge point continues charging even if the user is rejected from Central System.
Stop charge if StartTransaction replies concurrentTX	**Yes:** Stop charging if same card is used to start another charge at different charge points. **No:** Same card can be used to start multiples charging sessions in different charge points.
Heartbeat interval	Heartbeat sending interval (in seconds) for the back-end system in order to know if charge box is still alive. This parameter should be overwritten by the Central System on BootNotification response.
Connection timeout	Timeout (in seconds) before connecting to the central system.
Meter value sample interval	Meter value sample send interval (in seconds) for the back-end system. ***NOTE:*** *Set 0 to disable meter values messages.*

7.2.5 MANAGEMENT SYSTEM (CS)

This section provides to the charge point where OCPP central system is located and if it is requires authentication.

Please contact to your OCPP central system administrator to get the configuration parameters.

Value	Description
Host URL	Address where OCPP central system is located
User	Authentication for central system.
Password	
ID tag endianness	Tag format stored and sent to the Central System.

7.2.6 SSL CERTIFICATES

Secure Sockets Layer (SSL) provides authentication and privacy of information between charge point and central system on Internet.

Consult your OCCP central system administrator for the CS Server certificate.

Value	Description
CS Server CA certificate	Central System file certificate supplied by your central system administrator.
CB Server CA certificate	Upload charge box file certificate supplied with charge point unit.

7.2.7 ACTIONS

Final options to complete the OCCP engine configuration.

Value	Description
	Save settings and apply.
	Refresh data entered.
	Import an XML file template configuration.

7.2.8 LOGS

Logs section is located at the end of the website and can be useful for checking messages generated from PowerStudio engine, OCPP engine or operative system.

All logs shown are from charge point is started. If the unit is restarted, the messages are deleted to display the new ones.

Value	Description
System logs	Show all system logs stored: - PowerStudio messages. - OCPP messages. - Operative system messages.
Application logs	Show only OCPP logs stored.

7.3 STEP BY STEP INTEGRATIONS PROCEDURE

Step	Action
1	Open web browser and enter following address: **Direct link:** http://"IP ADDRESS":65432/ This page allows selecting and enabling the integration type on the charge unit.
2	By default, there is no integration enabled on the charge point.  Select desired integration and click on ***Save setup*** button.
3	Enter a new address on the web browser: **Direct link:** http://"IP ADDRESS":8080/ This page allows setup the integration enabled in step above. Use following default credentials: **Username** admin **Password** 1234

6	Fill the blank fields following parameters as your central system administrator. Click on **Save setup** to confirm. 
7	Enter following address on the web browser: **Direct link:** http://"IP ADDRESS"/html/setup.html Locate **Public address Manager** section shown as below:  The selected default option is: **Local address** Available options: - **Local address:** When selected, private IP address will be sent to OCPP central system. This option is valid if the OCPP central system is connected to the same private network of the charge point. - **Static address:** When selected, enter a value on *Public IP* textbox. It is possible to enter an IP address or a domain name. - **SIERRA Wireless Raven XE H2295EW:** Select this option only when SIERRA Wireless RAVEN XE router 3G is connected on same private network than charge point.
8	Click on **Save setup** to confirm.  Wait a few seconds until equipment restarts.

8 URL SUMMARY TABLE

Following table shows a summary of the entire URL available as described in previous sections.

DESCRIPTION	URL
Setup	http://"IP_ADDRESS"/html/setup.html
Upgrade	http://"IP_ADDRESS"/html/upgrade.html
PowerStudio version	http://"IP_ADDRESS"/services/system/info.html
Devices status	http://"IP_ADDRESS"/html/devstat.html
Log	http://"IP_ADDRESS"/html/log
Integration enable/disable	http://"IP_ADDRESS":65432
Active Integration configurator	http://"IP_ADDRESS":8080

9 CHARGE STATION MONITORING

The IP address assigned in last section it will be useful to connect to the charge station to monitor the real-time status.

Two ways available to connect with charge point:

- CirCarLife client software.

  You can download it from: http://circarlife.com/en/downloads/applications/applications

- Web browser.

Java software needs to be installed both cases on your computer in order to run the client software.

Please, download last version from: www.java.com

9.1 DEFAULT FACTORY CREDENTIALS

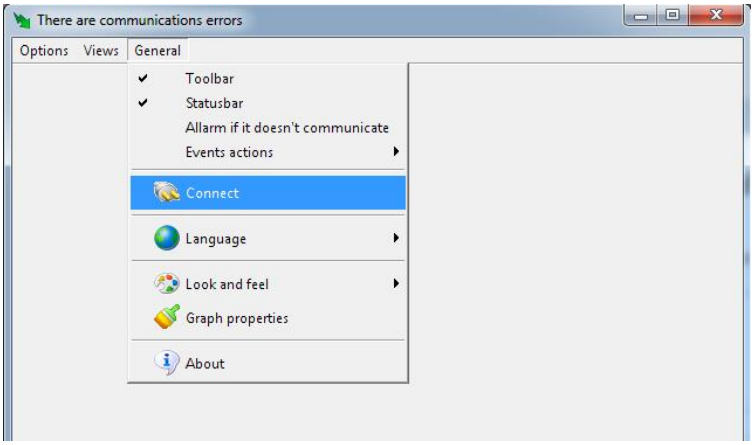
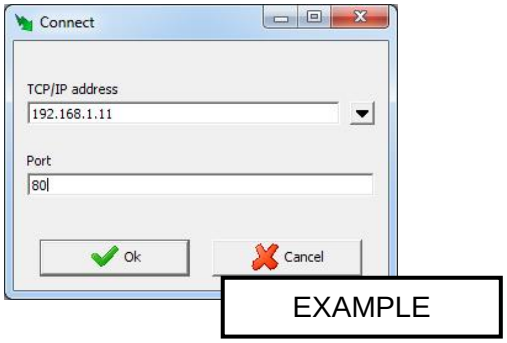
User authentication is enabled for all quick chargers models. A window appears before accessing to the Scada client view (charge station monitoring view).

Use following credentials:

Username	admin
Password	1234

NOTE	Default factory credentials can be changed using CirCarLife Scada Editor Software (not included with charge point)

9.2 CIRCARLIFE CLIENT SOFTWARE

Step	Action
1	Execute CirCarLife Client software.
2	Go to: **General -> Connect** 
3	Enter IP address and port shown in the last example. - IP address: - Port: 80  EXAMPLE Click **OK** to connect to the charge point.

4	Prompt below appears **only** when authentication is enabled on the charge point before getting access to the monitoring view.  ➢ Also is it possible to login into the system as an anonymous user.

9.3 WEB BROWSER

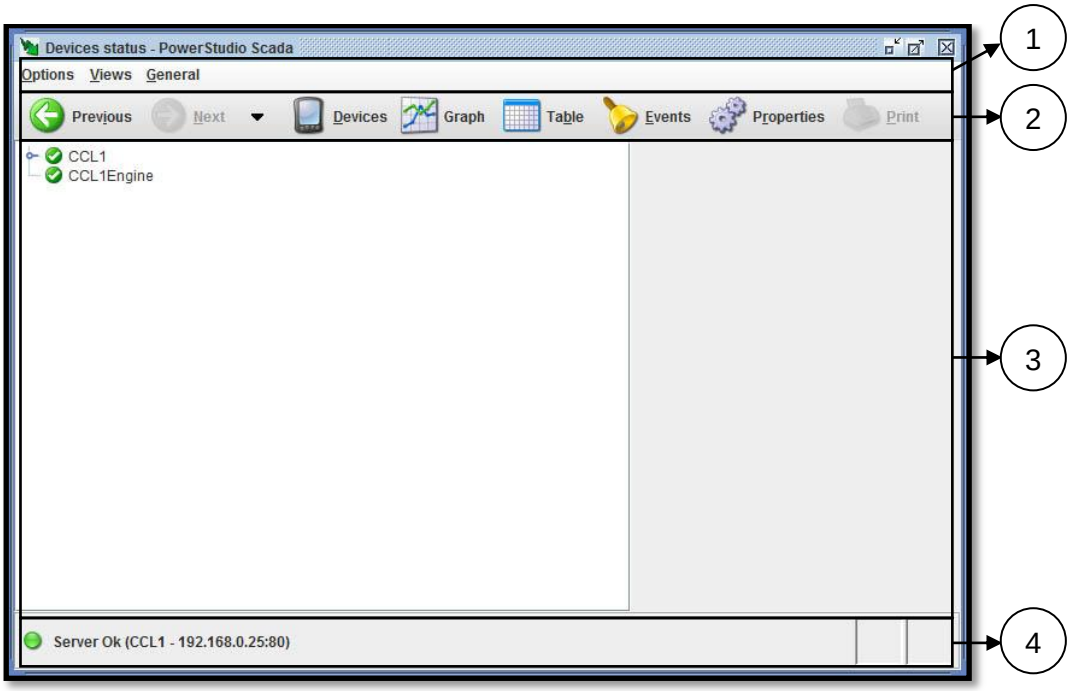
It is needed to having installed the latest version of java to access to the monitoring page. Download it from: www.java.com

Step	Action
1	Execute your web browser and enter the following address: i.e.(http://IP_ADRESS) *(monitor page will open automatically)*
2	Wait while the client software is starting.
3	Prompt below appears only when authentication is enabled on the charge point before getting access to the monitoring view.  ➢ **Note:** If you want to log as an anonymous user, enter the word "anonymous" in username and password fields.

10 CIRCARLIFE SCADA CLIENT OVERVIEW

CirCarLife Scada client software allows displaying and reporting all parameters generated by devices connected to the engine of the charge point.

Client platform is implemented in Java and can be executed on many devices.



Devices connected to the charge point may vary depending on model purchased.

CirCarLife Scada client is divided on 4 sections:

1. Menu bar
2. Toolbar
3. Screen information
4. Status bar

Following section describes in detail each of the points mentioned above.

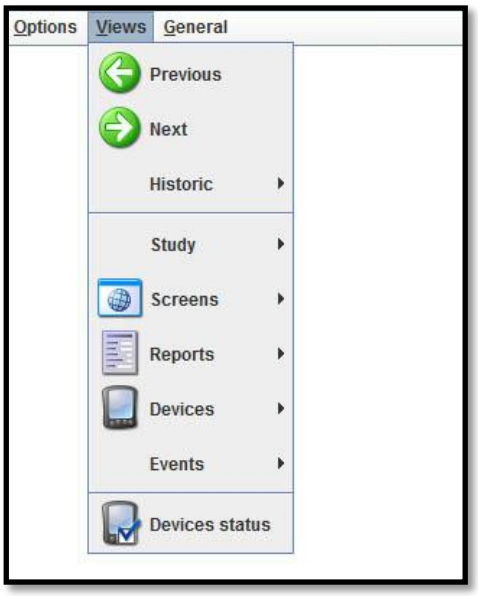
10.1 MENU BAR

Menu bar is located at the top and provides access to all available client features. There are three main menus, "*Options*", "*Views*" and "*General*".

10.1.1 OPTIONS MENU

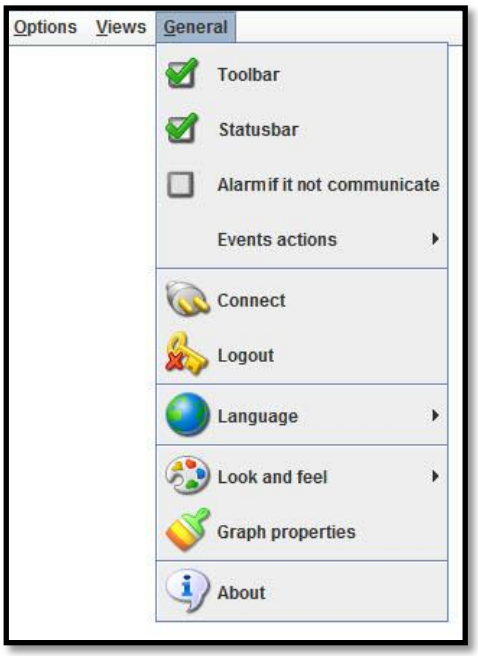
Option	Description
Properties	Displays properties of the currently active view. This option can be active or not depending on the view in progress.
Print	Print currently active view. This option can be active or not depending on the view in progress.
Export	Exports currently active view. This option can be active or not depending on the view in progress.
Exit	Close the client software.

10.1.2 VIEWS MENU



Option	Description
Previous	Displays the previous view.
Next	Displays the next view (If available).
Historic	Displays any view previously consulted.
Study	Displays graph and tables views.
Screens	Displays one of the user-defined Scada screens.
Reports	Displays one of the user-defined reports.
Devices	Device list shortcut.
Events	Displays the events log or the active events window.
Device status	Display the general status of all connected devices.

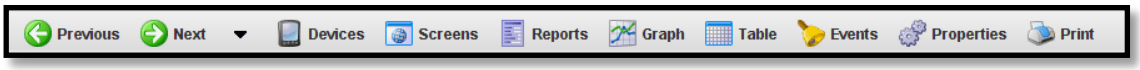
10.1.3 GENERAL MENU



Option	Description
Toolbar	Displays or hides the toolbar.
Statusbar	Displays or hides the status bar.
Alarm if it not communicate	Audible alarm if communication is lost between charge point and computer connected.
Events actions	List of actions enabled in the client software.
Connect	Connects with another CirCarLife Engine.
Logout	Closes the current session. Only available when the user has connected to engine that requires authentication.
Language	Changes the client application language.
Look and feel	Changes the appearance of the client application (Skin).
Graphs properties	Changes graph appearance.
About	Displays client application information.

10.2 TOOLBAR

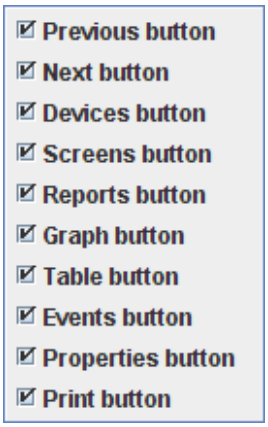
Toolbar contains the most frequent options used in the client software.



Option	Description
Previous	Displays the previous view.
Next	Displays the next view. If available.
"Down arrow"	Displays any view previously consulted.
Devices	Device list shortcut.
Screens	Displays one of the user-defined SCADA screens.
Reports	Displays one of the user-defined reports.
Graph	Creates a graph.
Table	Creates a table.
Events	Displays event history
Properties	Displays the properties window of the current view.
Print	Allows us to print the current view.

10.2.1 TOOLBAR SETUP MENU

It is possible to hide or display buttons for the toolbar. Right-click on the toolbar and following setup menu appears:

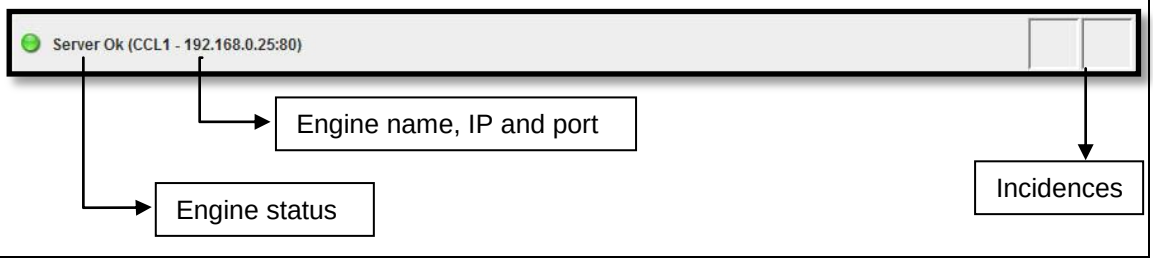


NOTE: *The toolbar may be hidden using the "General" menu. The menu bar may be hidden using the "Enable menu and toolbar" option in the editor "Preferences". Using this latter method it will not be possible to make it appear again from the client application.*

10.3 STATUS BAR

Status bar is located at the bottom of the client software and it contains general information about status of CirCarLife Scada engine connected.

OVERVIEW



Status	Description
	Online CirCarLife Scada engine and working properly.
	Offline CirCarLife Scada engine.

Incidences	Description
	One or more devices are not communicating. See device status section to find witch device is not communicating.
	One or more devices are not reporting.
	One or more events are active.

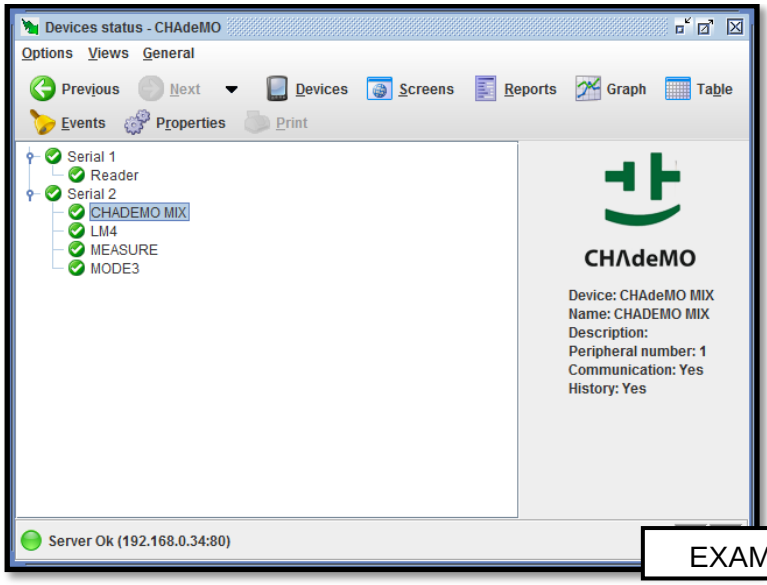
- Double-click over icon showed to see details.

NOTE: *Status bar can be hidden using the "General" option in the client application menu. It may also be hidden using the "Enable menu and toolbar" option in editor "Preferences". In the latter case it will not be possible to make it appear again from the client application.*

11 APPENDIX A: SCADA SOFTWARE FEATURES

11.1 SCADA DEVICES STATUS

Scada devices status section allows to view the overall status of all devices connected to the engine in real-time status.



EXAMPLE

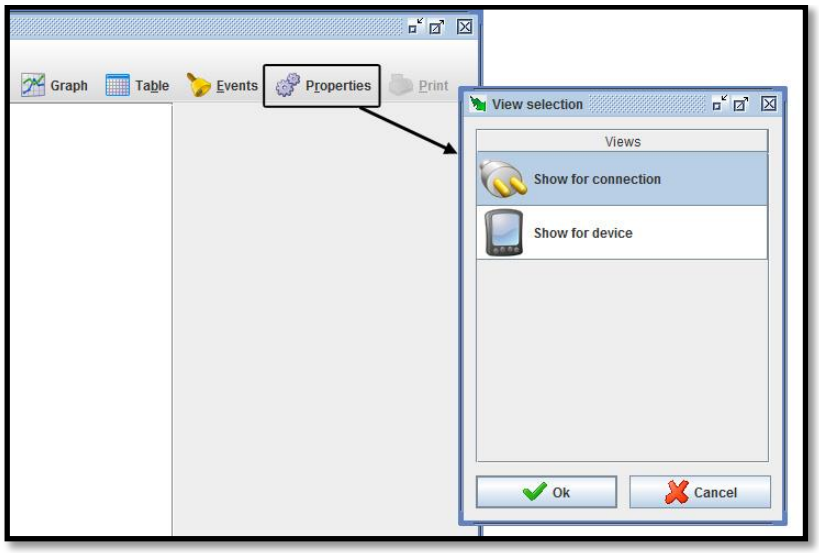
NOTE: In the right pane shows details when one device is selected.

"*Device status*" section is located under "*Views*" option from the menu bar.

ICON	STATUS	COMMENTS
	OK	Equipment communicating properly.
	Downloading data	Querying device data information
	Connection error	Port invalid or is not configured properly.
	Device not initialized.	Failed to establish initial communication with the device.
	Communications fault	Unable to re-establish communication with the equipment; response time exceeded.
	Incorrect version	Equipment is communicating properly, but the version of the engine does not support it.
	Channel error	Unable to open communications port.
	Communications fault	Some devices cannot communicate properly.

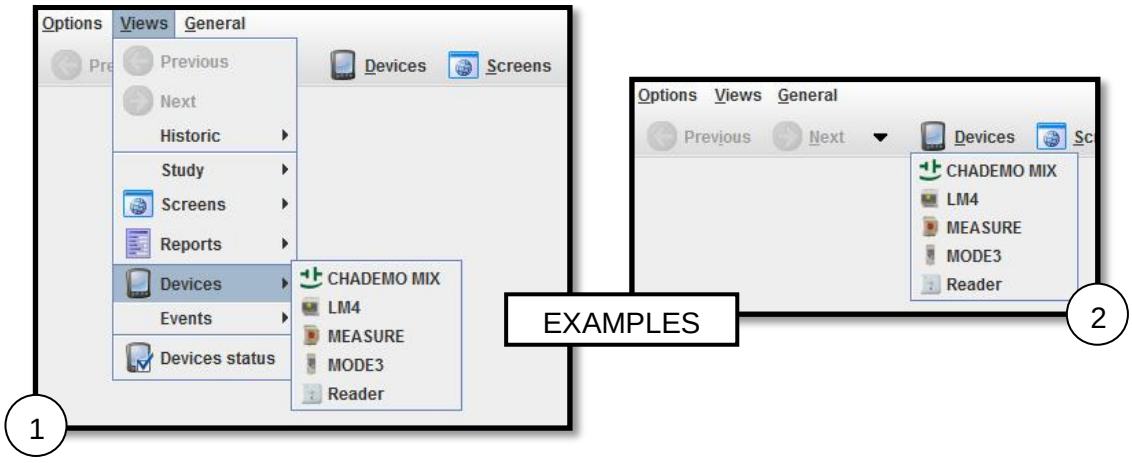
11.1.1 VIEW SELECTION

Devices can also be displayed by different views through the *"Properties"* button on the toolbar.



11.1.2 DISPLAYING REALTIME DEVICES

CirCarLife Scada client software allows easily navigate between devices connected to the engine to display the values contained in each device in real-time.



NOTE: the device list may vary depending on the charge point.

1	"*Devices"* option is located under "*Views*" option from the menu bar.
2	Also accessible from toolbar.

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